

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing Of Claims:**

Please amend the claims as follows:

1. (Currently Amended) A computer system for applying mode bias to an input field of an electronic document of an application, the system comprising:  
  
a mark-up language schema registry in communication with the application, wherein the mark-up language schema registry comprises a schema database and a grammar database, wherein the schema database comprises a plurality of schema names and a plurality of pointers to grammars associated with the plurality of schema names and wherein the pointers point to the grammar database comprising a plurality of grammars, wherein at least one of the plurality of grammars comprises a union of data from a plurality of user data sources; and  
  
an input engine in communication with the mark-up language schema registry, wherein the mark-up language schema registry is configured to:  
  
receive a schema name based on a hierarchical analysis of a textual input to the input field from the application, locate a grammar from among the plurality of grammars comprising one of: a regular expression and a statistical language model, the grammar having a language setting and a locale setting, and the grammar being associated with the schema name, and

send the grammar to the input engine, wherein the grammar defines an appropriate input for the input field, and wherein the schema in the mark-up language schema the registry is associated with a corresponding grammar by one of: referring to the corresponding grammar directly, mapping to the corresponding grammar, and encoding the corresponding grammar within the schema.

2. (Original) The system of claim 1 wherein the input engine is a speech recognition engine.
3. (Original) The system of claim 1 wherein the input engine is a handwriting recognition engine.
4. (Original) The system of claim 1 wherein the input engine is an input method editor (IME).
5. (Previously Presented) The system of claim 1 wherein the input engine is a keypad of a cellphone.
6. (Previously Presented) The system of claim 1 wherein the input engine is a gesture-based input method.

7. (Previously Presented) The system of claim 1 wherein the input engine is a sign language recognition engine.

8. (Canceled)

9. (Original) The system of claim 1 wherein the grammar is a context free grammar.

10. (Original) The system of claim 1 wherein the grammar is a context sensitive grammar.

11. – 13. (Cancelled)

14. (Previously Presented) The system of claim 1 wherein the grammar defines an appropriate input for the input field by defining a list of acceptable inputs for the input field.

15. (Original) The system of claim 1 wherein the input engine uses the grammar to receive input from a user of the application.

16. (Previously Presented) The system of claim 15 wherein the input engine further uses the grammar to bias the user's input toward a correct input for the input field.

17. (Original) The system of claim 15 wherein the input engine compares the input of the user to the grammar to determine whether the input matches and is an appropriate input.

18. (Currently Amended) The system of claim 17 wherein if the input engine determines that the input of the user does not match an appropriate input, then the input ~~engines~~ engine rejects the input and causes the application to display an error message to the user.

19. (Previously Presented) The system of claim 1 wherein the mark-up language schema registry is in communication with the application through a text service framework.

20. (Currently Amended) A computer system for applying mode bias to an input field of an electronic document of an application, the system comprising:

a mark-up language schema registry in communication with the application, the mark-up language schema registry operable to point to code for dynamically generating a plurality of ~~one or more~~ grammars comprising one of: regular expressions and statistical language models, wherein the plurality of ~~one or more~~ grammars are used to define an appropriate input for the input field, wherein at least one of the plurality of grammars comprises a union of data from a plurality of user data sources, and wherein each mark-up language schema in the registry is associated with a corresponding

grammar by one of: referring to the corresponding grammar directly and mapping to the corresponding grammar, and encoding the corresponding grammar within the schema;  
~~and~~

an input engine in communication with the mark-up language schema registry, wherein the mark-up language schema registry receives a schema name from the application through a text service framework, locates an identifier of a grammar among the plurality of grammars associated with the schema name and sends the located identifier of the grammar to the input engine, wherein the input engine uses at least one of the plurality of grammars to bias input from a user of the application toward a correctly formatted input, wherein if the input engine determines that the input of the user does not match an appropriate input, then the input engine recommends an alternate input, wherein the input engine is at least one of the following: a speech recognition engine, a handwriting recognition engine, an input method editor, a phone keypad, a gesture-based input method, a keyboard, and a sign language recognition engine; and

a recognizer library in communication with the application, wherein the recognizer library is configured to apply a semantic category to the textual input.

21. (Currently Amended) A computer-implemented method for applying mode bias to an input field of an electronic document of an application program module, the method comprising:

determining that an insertion point is within the input field;

determining a mode bias schema that is attached to the input field, wherein the determination of a mode bias schema uses a ranked list of mode bias schemas;

dynamically generating a plurality of ~~one or more~~ grammars based on the input field and a mark-up language schema registry, wherein dynamically generating at least one of the plurality of grammars comprises collecting data from a plurality of user data sources, wherein the plurality of ~~one or more~~ grammars define an appropriate input for the input field, and wherein each of the plurality of grammars comprise one of: a regular expression and a statistical language model, has a language setting and a locale setting, and is associated with ~~the~~ a schema name;

determining a grammar from the generated plurality of one or more grammars that is associated with the mode bias schema; and

sending the grammar associated with the mode bias schema to an input engine wherein the input engine uses the grammar associated with the mode bias schema to receive input for the input field.

22. (Previously Presented) The method of claim 21 further comprising: receiving text at the insertion point and determining whether the received text matches an input type defined by the grammar and, if so, then displaying the text in the input field.

23. (Original) The method of claim 22 further comprising the step of: if the text received at the insertion point does not match the input type defined by the grammar, then displaying an error message.

24. (Previously Presented) The method of claim 21 wherein determining a grammar that is associated with the mode bias schema comprises:

cross-referencing the mode bias schema in a schema database to determine the grammar that is associated with the mode bias schema.

25. (Previously Presented) The method of claim 24 wherein sending the grammar to an input engine comprises retrieving the grammar from a grammar database and sending the grammar to the input engine.

26. – 30. (Cancelled)